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### PATENT SPECIFICATION



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PROVISIONAL SPECIFICATION

#### Improvements in and relating to Theatres and the like

We, HOLOPHANE LIMITED, a company organised and existing under the laws of Great Britain, and Rollo Gillespie Williams, a British subject, both of Holophane House, Elverton Street, Vincent Square, London, S.W.1, England, do hereby declare the nature of this invention to be as follows:—

In the traditional construction of 10 theatre the stage front is bounded by a proscenium arch the opening of which is substantially plane and substantially vertical, the sides comprising straight wall sections transverse to the axis of the 15 theatre; the stage itself often has an apron extending forward of the arch. The bulk

extending forward of the arch. The bulk of the stage lighting is provided by sources located behind the arch, though the footlights may be in front and it is 20 usual to provide a number of spotlights (each requiring its own operator) at

(each requiring its own operator) at different points in the auditorium. This traditional structure has disadvantages among which is that lighting effected 25 from behind the proscenium arch is inefficient for the lighting of artists because it is generally thrown in uneffective directions; another disadvantage is that

directions; another disadvantage is that
the stage manager and prompter are
so usually placed immediately behind the
side walls of the arch where space is
cramped and where a proper view of the
stage is difficult or impossible to obtain.
The transverse side walls with the result-

35 ing disadvantages are still present even when the auditorium is built to converge on to the stage opening thus masking the side walls.

The object of the present invention is a
40 departure from the traditional construction which overcomes the above disadvantages. According to the invention
the proscenium opening has the sides
swept forward in plan and the lower
45 boundaries of these side parts in front
elevation slope upwardly from the floor
level of the stage; the walls beneath these
lower boundaries continue in the form of
the side walls of the auditorium which
50 preferably converge from the widest part
of the auditorium towards the stage and

the boundaries also extend up to the ceiling of the auditorium which is in

general arched. In this way the stage space can be carried round the sides of 55 the proscenium opening behind the side walls of the auditorium from whence light can be thrown upon the stage in very advantageous and effective directions. Ample space is also provided for the stage 60 manager and prompter in positions in which a full view of the stage is obtained. Space is also provided for a switchboard by which an operator or operators who have the stage in view can control substantially the whole of the stage lighting. The roof over the aforesaid lower boundaries is preferably not continuous with the ceiling of the auditorium but is in the form of an arched canopy which, 70 where it reaches the locality of the ceiling, is higher, leaving a space between the two invisible to the audience but providing adequate space for accommodation of considerable lighting equipment 75 which will provide top lighting for the stage in a very efficient manner. The canopy may for instance be more deeply arched than the ceiling thus leaving a crescent shaped space. It should be 80 explained that stepped coved ceilings have already been used the step or steps accommodating invisible lighting equipment which has contributed to the stage lighting but more usually to auditorium 85 lighting a matter with which the present invention has no concern.

The extreme sides of the stage can readily be masked from the audience by carrying the curtains round in a track 90 which extends behind the side walls, but preferably other fixed walls are carried down from the stage roof whose lower edges bound the opening. Thus the opening in elevation may be an oval or 95 the side boundaries may be curved but meet in a point. The side walls extending down from the stage roof may meet and unite with the lower side walls of the auditorium but preferably they do not, 100 being behind and spaced away from the latter but parallel or substantially parallel thereto. In this case these side walls may only extend axially of the theatre far enough to effect screening or 105 they may be carried further if structural

reasons render this desirable. In effect\* the canopy and side walls extending down therefrom form a separate shell from the auditorium walls and ceiling, and one which forms the upper part of a proscenium arch which instead of being vertical is tilted with its upper edge further back than its lower edge while the front of the auditorium shell forms the lower part of the proscenium arch tilted the other way.

- The term theatre used herein is to be understood in a broad sense and the invention is applicable to any kind of hall provided with a stage.

Dated this 5th day of September, 1936. SEFTON-JONES, O'DELL & STEPHENS,

Chartered Patent Agents, 285, High Holborn, London, W.C.1, Agents for the Applicants.

#### COMPLETE SPECIFICATION

#### Improvements in and relating to Theatres and the like

We, Holophane Limited, a company organised and existing under the laws of Great Britain, and Rollo Gillespie Williams, a British subject, both of Holophane House, Elverton Street, Vincent Square, London, S.W.1, England, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described 25 and ascertained in and by the following statement:-In the traditional construction of

theatre the stage front is bounded by a proscenium arch the opening of which is. 30 substantially plane and substantially vertical, the sides comprising straight wall sections transverse to the axis of the theatre; the stage itself often has an apron extending forward of the arch. (In this Specification forward means from the stage towards the auditorium). The bulk of the stage lighting is provided by sources located behind the arch, though the footlights may be in front and it is 40 usual to provide a number of spotlights (each often requiring its own operator) at different points in the auditorium. This traditional structure has discovered the structure of the structur advantages among which is that lighting 45 effected from behind the proscenium arch is inefficient for the lighting of artists because it is generally thrown in un-effective directions; another disadvantage is that the stage manager and prompter 50 are usually placed immediately behind the side walls of the arch where space is cramped and where a proper view of the

55 ing disadvantages are still present even when the auditorium is built to converge on to the stage opening thus masking the side walls. The object of the present invention is

The transverse side walls with the result-

60 a departure from the traditional construc-tion which overcomes the above dis-advantages. According to the invention screens are provided at the sides of the auditorium adjacent the proscenium open-

ing shaped to hide from the audience a 65 space outside them from which a view of the stage can be obtained, there being no transverse side walls immediately abutting upon the sides of the proscenium opening which would impede such view. The 70 term proscenium opening used herein means the opening between the auditorium and stage as seen from the auditorium. The invention also consists in a construction in which the proscenium opening has 75 the sides swept forwards in plan and the lower boundaries of these side parts as seen from the auditorium diverge upwardly from the floor level of the stage; walls the upper edge of which form 80 these lower boundaries may continue forwards in the form of the side walls of the auditorium which preferably converge from the widest part of the auditorium towards the stage and the upper 85 boundaries of the side parts of the opening may be the lower edges of walls which unite with the last mentioned walls. Instead the upper boundaries may be formed as described below and the lower 90 boundaries may extend upwards in a continuous sweep to the junction of the side walls with the ceiling of the auditorium which is in general arched. In this way the stage space can be carried 95 forward round the sides of the proscenium opening outside the side walls of the auditorium from whence light can be thrown upon the stage in very advan-tageous and effective directions. Ample 100 space is also provided for the stage stage is difficult or impossible to obtain. manager and prompter in positions in which a full view of the stage is obtained. Space is also provided for a switch-board by which an operator or operators who 105 have the stage in view can control sub-stantially the whole of the stage lighting. The roof over the aforesaid lower boundaries is preferably not continuous with the ceiling of the auditorium but is 110 in the form of an arched canopy which, where it reaches the locality of the ceiling, is higher, leaving a space between the two

substantially invisible to the audience but providing adequate space for accommodation of considerable lighting equipment which will provide top lighting for the stage in a very efficient manner. The the stage in a very efficient manner. canopy may for instance be more deeply arched than the ceiling thus leaving a crescent shaped space. It should be explained that stepped coved ceilings 10 have already been used the step or steps

accommodating invisible lighting equipment which has contributed to the stage lighting but more usually to auditorium

lighting a matter with which the present 15 invention has no concern. The extreme sides of the stage can readily be masked from the audience by carrying the curtains round in a track which extends outside the side walls, but preferably other fixed walls are carried down from the above mentioned canopy, the back top edge of the canopy and lower edges of the walls respectively bounding the top and upper sides of the opening as 25 seen from the auditorium. The opening seen from the auditorium may be an oval or the side boundaries may have curved or straight top and bottom parts which meet in a point. Here again curtains may be 30 used to fill the extreme side parts of the opening seen from the auditorium thus leaving a visible opening with vertical side boundaries and a more or less triangular visible portion of curtain on each side. 85 The side walls extending down from the canopy may meet and unite with the lower side walls of the auditorium but preferably they do not, being outside and spaced away from the latter; they may be for 40 example parallel or substantially parallel thereto. In this case these side walls may only extend downwardly and axially of the theatre far enough to effect screening or they may be carried further if 45 structural reasons render this desirable for instance to support the canopy without interfering with the view of the stage from outside the side walls of the auditorium. In effect the canopy and 50 side walls extending down therefrom form a separate shell from the auditorium walls and ceiling, and one whose back edge forms the upper part of the boundary of the prescenium opening which instead of 55 being vertical is tilted with its upper edge backwards while the back edge (i.e.

forms the lower part of the proscenium opening tilted the other way. The term theatre used herein is to be understood in a broad sense and the invention is applicable to any kind of hall provided with a stage.

the stage end) of the auditorium shell

The accompanying drawings diagram-65 matically illustrate a construction of theatre in accordance with the invention: Figure 1 is a longitudinal section of the front part of the auditorium and the stage,

Figure 2 is a front view partly in 70 section, looking towards the stage from the auditorium,

Figure 3 is a perspective diagram of the front part of the auditorium side walls and ceiling and the canopy with its side 75

The auditorium is bounded at the sides by walls 1 which converge towards the stage 2 and a ceiling 3. The ceiling 3 terminates some way in front of 80 the front edge of the stage proper 2 (as distinct from the apron 4) and the portions 5 of the walls behind the end of the ceiling have each an upper edge 6 sweeping down in a continuous curve to 85 the level of the stage. In front of the stage and behind the end of the ceiling 3 is a canopy 7 with side walls 8. The canopy is higher at its front edge than the edge of the ceiling leaving a space 9 substantially invisible to the audience in which lighting equipment for the stage can be accommodated. The canopy slopes down backwardly bringing its back edge 10 to the top of the proscenium opening. 95 The side walls 8 are outside the walls so as to leave a space 11 on each side where the stage manager, prompter and switchboard operators may stand, screened from the audience by the wall parts 5, but 100 themselves having a clear view of the stage. These spaces 11 may conveniently be floored at the same level as, and continuously with, the stage.

It will be noted that the proscenium 105

opening as seen by the audience (Figure 2) consists of a main central portion (bounded by the vertical chain line) with substantially triangular parts 12 outside the chain lines. The exact side boundaries 110 seen will vary from every position in the auditorium. Their shape may be varied by varying the contours of the wall parts 5 and 8. The top and bottom may also be varied for instance the top may be 115 arched. The triangular side spaces 12 may be screened as by curtains hung in or may be screened as by curtains hung in or near the vertical plane of the edge 10. Any walls at the sides of the stage needed

for cooperating with the safety curtain 120 can also be provided, though not shown.

It will be seen that the proscenium opening is bounded in effect in the upper part by a backwardly tilted arch formed by the rear edge 10 and upwardly con- 125 verging rear edges of the walls 8 and by downwardly converging edges of the wall parts 5 and the stage floor.

Having now particularly described and ascertained the nature of our said inven- 130 tion and in what manner the same is to be the ceiling of the auditorium but is in the performed, we declare that what we claim form of a canopy higher than said ceiling thus leaving a space substantially in-

1. A construction of theatre in which 5 screens are provided at the sides of the auditorium adjacent the proscenium opening shaped to hide from the audience a space outside them from which a view of the stage can be obtained, there being no

10 transverse side walls immediately abutting upon the sides of the proscenium opening which would impede such view.

2. A construction of theatre according to claim 1 in which the proscenium open15 ing has the sides swept forwards in plan and the lower boundaries of the side parts as seen from the auditorium diverge upwardly from the floor level of the stage.

3. A construction of theatre according

20 to claim 2 in which walls the upper edges of which form the said lower boundaries continue forwards in the form of the side walls of the auditorium which preferably converge towards the stage.

4. A construction of theatre according to claim 2 or 3 in which the upper boundaries of the side parts are the lower edges of walls which meet and unite with walls the upper edges of which form the

30 lower boundaries of said side parts.
5. A construction according to claim 3 in which the said boundaries extend upwards in a continuous sweep to the junction of the side walls with the ceiling

35 of the auditorium.
6. A construction according to claim 2,
3, 4 or 5 in which the roof over the said lower boundaries is not continuous with.

the ceiling of the auditorium but is in the form of a canopy higher than said ceiling 40 thus leaving a space substantially invisible to the audience in which stage lighting equipment for example can be accommodated.

7. A construction according to claim 6 45 in which side walls are carried down from the canopy, whose back top edge and lower edges respectively bound the top and upper sides of the proscenium opening as seen from the auditorium.

8. A construction according to claim 7 in which the side walls carried down from the canopy support it and are outside and spaced away from the side walls of the auditorium so as not to interfere with the 55 view of the stage immediately outside said auditorium side walls.

9. A construction according to any preceding claim in which the upper parts of the side boundaries of proscenium opening converge upwards as seen from the auditorium.

10. A construction according to claim 7, 8 or 9 in which the portion of the proscenium boundary formed by said 65 canopy and its side walls in plan has its sides swept forward from its upper edge.

11. A construction according to any preceding claim in which the extreme sides of the stage are masked by curtains. 70 Dated this 5th day of October, 1937.

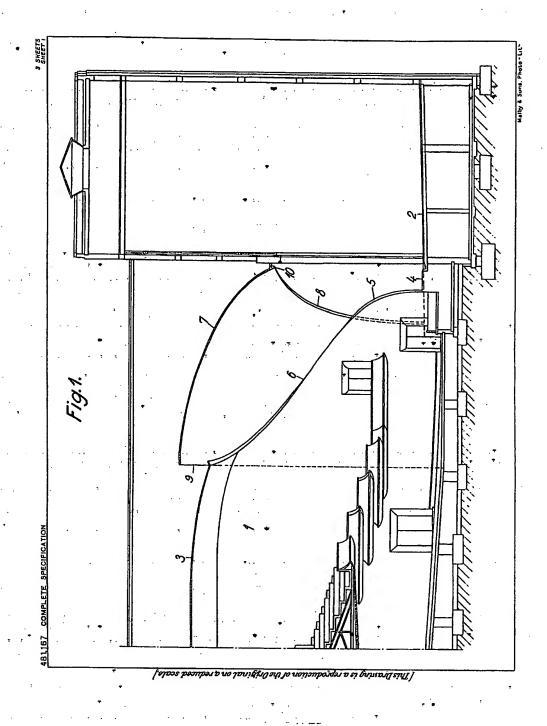
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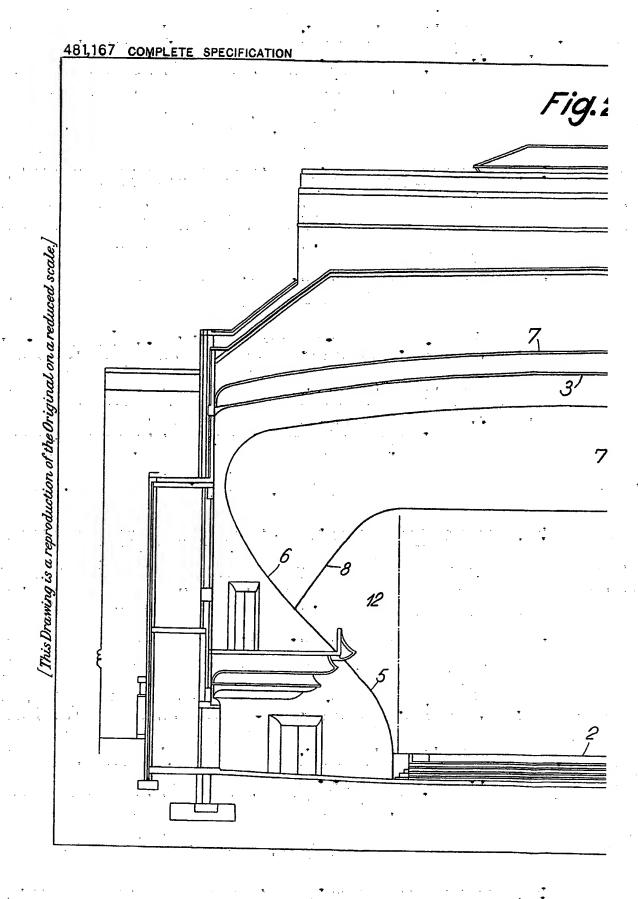
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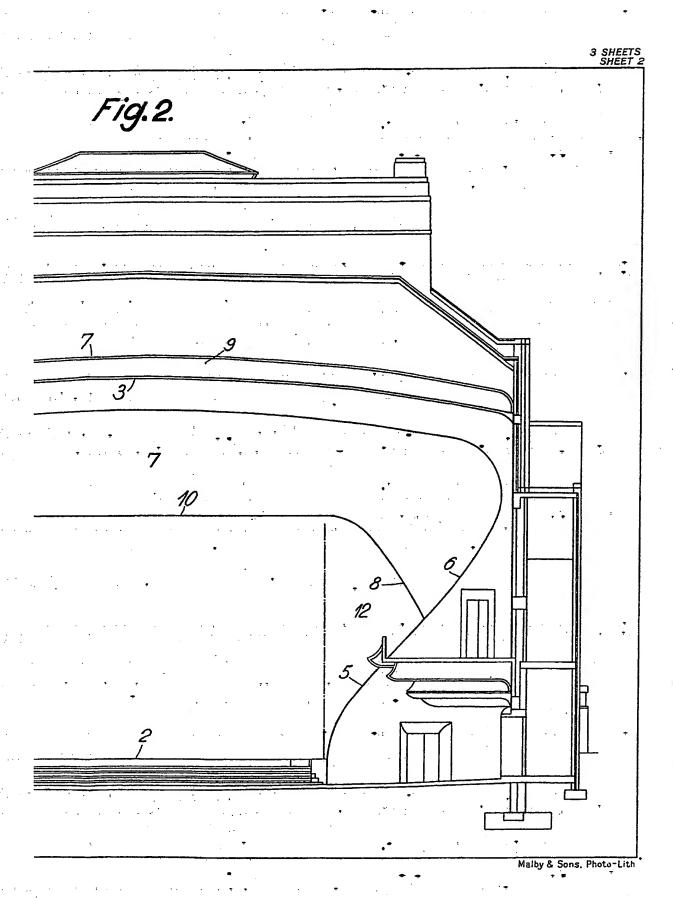
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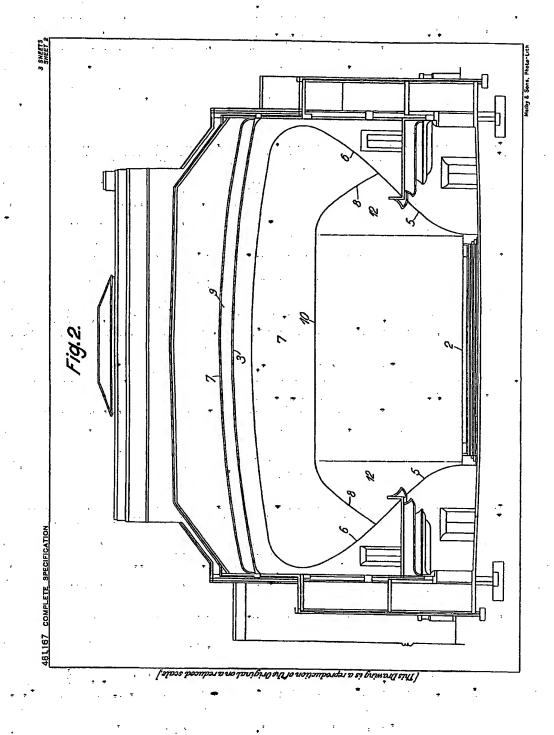
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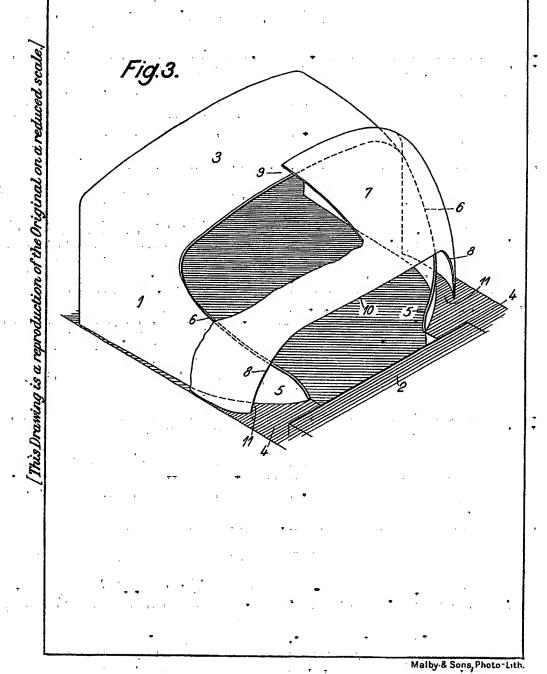
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